| Index of Claims |          |          |      |              |          |          |           |      |                 |          |            | 1        | Application No. |                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |          |          |          |               |         |      |          | Applicant(s) |           |          |              |        |         |         |              |                                                  |  |
|-----------------|----------|----------|------|--------------|----------|----------|-----------|------|-----------------|----------|------------|----------|-----------------|--------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------|----------|----------|---------------|---------|------|----------|--------------|-----------|----------|--------------|--------|---------|---------|--------------|--------------------------------------------------|--|
|                 | Rejected |          |      |              |          |          |           |      |                 |          | 10/603,348 |          |                 |                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |          |          |          | BELL, DEAN A. |         |      |          |              |           |          |              |        |         |         |              |                                                  |  |
|                 | Rejected |          |      |              |          |          |           |      |                 |          | Examiner   |          |                 |                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |          |          |          | Art Unit      |         |      |          |              |           |          |              |        |         |         |              |                                                  |  |
|                 |          |          | Ш    |              |          |          |           |      |                 |          |            |          |                 |                                                                                | Ι.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Joseph L. Williams |          |          |          |               |         |      |          |              |           |          |              |        |         |         |              |                                                  |  |
|                 | 118818   | 1 11611  | 481  | 18 61        |          |          |           | 1111 |                 |          | -          |          |                 |                                                                                | ا                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | los                | ept      | ነ L      | . V      | VIII          | lıar    | ms_  |          |              |           | 28       | 79           |        |         |         |              |                                                  |  |
|                 |          |          | _    |              |          |          | 1         |      | П               | _        | The        |          | h nı            |                                                                                | rol\                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    | 7        | Г        | Г        |               |         | -    |          | 1            |           |          |              |        |         |         | 1            |                                                  |  |
|                 |          | √        | R    | eje          | cte      | ₽d       |           |      | -               | •        | (1111      | Car      | cell            | ed                                                                             | ri ai j                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | •                  |          | N        | ١        | 101           | n-E     | lec  | ted      |              | A         |          | Αp           | pe     | al      |         |              |                                                  |  |
|                 |          | =        | Α    | llo          | we       | d        |           |      | ÷               |          |            | Res      | trict           | ted                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |          | ī        | ı        | nte           | erfo    | erei | nce      |              | 0         |          | Obj          | ect    | ted     |         |              |                                                  |  |
|                 |          |          |      |              |          |          | J         |      | Ш               |          |            |          |                 |                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    | ل        | L        |          |               |         |      |          | J            | Ш         |          |              |        |         |         | J            |                                                  |  |
| Cla             | im       | Ι        | Date |              |          |          | e         |      |                 | $\neg$   |            | Claim    |                 |                                                                                | Da                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    | <u>—</u> |          |          |               | $\neg$  | С    | aim      | Т            | Date      |          |              |        |         |         |              |                                                  |  |
|                 |          | 4        |      |              |          |          |           |      |                 |          |            |          |                 |                                                                                | Т                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                    | T        |          |          |               |         | 7    |          | a<br>a       |           |          |              | T      |         | T -     |              |                                                  |  |
| <u> </u>        | igi      | 18/0     |      |              |          |          |           |      |                 |          |            | <u> </u> | igi             |                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |          |          |          |               |         | 1    | Final    | Original     |           |          |              |        |         |         |              |                                                  |  |
| -               | ŏ        | 8        |      |              |          |          |           |      |                 | - 1      | '          | -        | ŏ               |                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |          |          |          |               |         |      | "        | Ŏ            |           |          |              |        |         |         |              |                                                  |  |
|                 | 1        | =        |      |              |          |          |           |      |                 |          |            |          |                 |                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    | 上        |          |          |               |         | 1    |          | 101          |           |          |              |        |         |         |              |                                                  |  |
|                 |          | =        |      |              |          |          |           |      |                 |          |            |          |                 | $\perp$                                                                        | $\perp$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | _                  | _        | _        |          | _             | $\perp$ | 4    |          | 102          | Ш         | _        | 4            | - -    | ╀       | ╀       | _            | L                                                |  |
| _               |          | Ш        |      | <u> </u>     | <u> </u> | <u> </u> | Н         |      | $\vdash$        | 4        | -          |          |                 | _                                                                              | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ┼                  | +-       | <u> </u> |          | ╀             | +-      | 4    | <u> </u> | 103<br>104   | Н         |          | +            | +      | +-      | -       | -            | -                                                |  |
| _               |          | Н        |      | <u> </u>     | ├        | _        | $\vdash$  |      | H               | $\dashv$ | $\vdash$   |          |                 | +                                                                              | +-                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ╁╌                 | ╁        | -        | ├        | ╀             | ╀       | ┥    | -        | 104          | $\vdash$  | -        | ╁            | +-     | ╁       | ┿       | $\vdash$     | -                                                |  |
| -               |          | $\vdash$ | _    | ⊢            | ╀        |          | Н         | _    | $\vdash$        | $\dashv$ | $\vdash$   |          |                 | +                                                                              | ╁                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ╁                  | ╁        | H        | ┢        | ╁╌            | ╁       | ┨    | -        | 106          | Н         | -        | +            | +      | +       | +       | H            | ┢                                                |  |
| ┥               |          | Н        | _    |              | ┢        | -        | $\vdash$  | _    | $\vdash$        | $\dashv$ | -          |          |                 | ╅                                                                              | ╅╴                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | +                  | +        | -        | -        | ╁             | ╈       | ┨    | $\vdash$ | 107          | H         | $\dashv$ | +            | +-     | +       | +       | $\vdash$     | <del>                                     </del> |  |
|                 |          | Н        |      |              | $\vdash$ |          | $\vdash$  | _    | H               | $\dashv$ |            |          | 58              | _                                                                              | $\top$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | +                  | +        | $\vdash$ | Н        | 十             | ╈       | 1    |          | 108          | H         |          | +            | $\top$ | $\top$  | 1       |              |                                                  |  |
|                 |          | =        |      | $\vdash$     |          |          | П         |      | П               | ┨        |            |          | 59              | $\dashv$                                                                       | $\top$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                    | $\top$   | Т        | $\vdash$ | Т             | $\top$  | 7    |          | 109          |           |          |              |        |         |         |              |                                                  |  |
|                 | 10       | =        | _    |              |          |          |           |      |                 |          |            |          | 60              |                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |          |          |          |               | Γ       | ]    |          | 110          |           | $\Box$   | $oxed{oxed}$ |        |         |         |              |                                                  |  |
|                 |          |          |      | $\Box$       |          |          | $\square$ |      |                 | $\Box$   |            |          | 61              | $\bot\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$ | $\perp$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | L                  |          | Ľ        | Ĺ        | L             |         | _    |          | 111          | $\sqcup$  | _        | _            | 1      | $\perp$ |         |              | L                                                |  |
| _               |          | Ш        |      | <u></u>      | <u> </u> | L        |           |      | Ш               | _        | $\perp$    |          |                 |                                                                                | $\bot$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | $\perp$            | 1        | _        | L        | $\vdash$      | ╄       | 4    | <u></u>  | 112          | Ш         | $\dashv$ | 4            | $\bot$ | 4       | 4_      |              |                                                  |  |
|                 |          |          | _    |              | <u> </u> | <u> </u> | Ш         | _    | $\sqcup$        | _        | $\vdash$   |          |                 | $\perp$                                                                        | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ╀                  | +        | ļ        | ┡        | ╀             | 1       | -    | <u> </u> | 113          | $\vdash$  | $\dashv$ |              | +      | +       | +       | $\vdash$     |                                                  |  |
| _               |          |          |      | $\vdash$     | ├-       | -        | $\vdash$  |      | $\vdash \vdash$ |          | $\vdash$   |          |                 | -                                                                              | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | -                  | +-       | -        | $\vdash$ | ╀             | +       | ┨    | $\vdash$ | 114          | $\vdash$  | -        | +            | +      | +-      | +       | $\vdash$     | $\vdash$                                         |  |
| -               |          | $\vdash$ | _    | $\vdash$     | $\vdash$ | $\vdash$ | $\vdash$  | _    | $\vdash$        | $\dashv$ | -          |          |                 | +                                                                              | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | +                  | +-       | ⊢        | $\vdash$ | $\vdash$      | +       | -    | $\vdash$ | 116          | Н         | +        | +            | +      | +       | +-      | $\vdash$     | H                                                |  |
| 4               |          | -        |      | ⊢            | ├        | ┝        | $\vdash$  | _    | $\vdash$        | $\dashv$ | -          |          |                 | +                                                                              | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | +                  | +-       | -        | ╁        | ╁             | ╁       | +    | $\vdash$ | 117          | $\vdash$  | +        | +            | +      | +       | +-      | +            | $\vdash$                                         |  |
| -               |          |          |      | $\vdash$     | ╁        | $\vdash$ | $\vdash$  | _    | $\vdash$        | $\dashv$ | $\vdash$   |          |                 | +                                                                              | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ╁                  | +-       | -        | -        | $\vdash$      | +-      | ┨    |          | 118          | $\forall$ | $\dashv$ | +            | +      | +       | +-      |              |                                                  |  |
| -               |          | -        | _    | <del> </del> | $\vdash$ | Н        | Н         |      | H               | $\dashv$ | $\vdash$   |          | 69              | +                                                                              | +                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | $^{\dagger}$       | +        | $\vdash$ | $t^-$    | †             | +       | 1    |          | 119          | Н         |          | $\top$       | +      | $\top$  | $\top$  | П            |                                                  |  |
| $\dashv$        |          | $\vdash$ | _    | $\vdash$     | <u> </u> | H        | $\vdash$  |      | H               | 7        | $\vdash$   |          | 70              | _                                                                              | $\top$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | T                  | T        | Т        | $\vdash$ | T             | +       | 1    |          | 120          | П         | $\top$   | 1            |        | $\top$  | 1       |              |                                                  |  |
|                 |          | П        |      | 1            | T-       | Г        | $\sqcap$  |      | $\Box$          | $\neg$   |            | . [      | 71              | Ţ                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | T                  |          |          |          | Ι             | 1       |      |          | 121          |           |          |              |        |         |         |              |                                                  |  |
|                 | 22       |          |      |              |          |          |           |      |                 |          |            |          | 72              |                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | I                  |          |          |          |               |         |      |          | 122          |           |          |              |        |         |         |              |                                                  |  |
|                 | 23       |          |      |              |          |          |           |      |                 |          |            |          | 73              |                                                                                | $oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{oldsymbol{ol}}}}}}}}}}}}}}$ |                    |          |          |          |               | $\perp$ | ╛    |          | 123          | $\Box$    |          | $\perp$      |        | 1       | $\perp$ | $oxed{oxed}$ | _                                                |  |
| 1               | 24       | 1 1      |      | l            | I        | ı        | í l       |      | 1               | - 1      | - 1        | - 1      | 74              |                                                                                | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1                  |          | ı        | 1        | 1             | - 1     | 1    | 1        | 124          | 1 1       | - 1      | - 1          | - 1    | 1       | 1       | 1            | ı                                                |  |

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